AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-18.   Cancelled.

19.   (Previously Presented) A method of administering resource utilization in a computer, the method comprising:

scheduling reservation requests in accordance with at least one method for a plurality of differing resources of the computer, wherein said scheduling initiates resource specific reservation processing and includes at least one method for making reservations for access to a resource of the computer,

running a first process to make a reservation for access to one of said resources in dependence on a resource requirement communication from an application process, said application process calling a scheduling method taking a hardware independent first resource access requirement definition as a parameter and calling the reservation method to make a reservation for said application process using a hardware dependent second resource access requirement definition as a parameter:

running a second process to grant requests for access to said resource from said application process in dependence on said reservation, comprising running a resource specific scheduling process to grant access to a resource in dependence on the reservation initiated by said first process prior to said second process; and

utilizing said resource for the purposes of said application process;

wherein said scheduling translates the hardware independent first resource access requirement definition into the hardware dependent second resource access requirement definition; and

wherein said scheduling is supported by a platform and said scheduling translates said hardware independent resource access request definition to a second resource access request definition dependent on the properties of said platform.

20-21. Cancelled.

22.   (Previously Presented) A method of administering resource utilization in a computer, the method comprising:

scheduling reservation requests in accordance with at least one method for a plurality of differing resources of the computer, wherein said scheduling initiates resource specific reservation processing and includes at least one method for making reservations for access to a resource of the computer,

running a first process to make a reservation for access to one of said resources in dependence on a resource requirement communication from an application process, said application process calling a scheduling method taking a hardware independent first resource access requirement definition as a parameter and calling the reservation method to make a reservation for said application process using a hardware dependent second resource access requirement definition as a parameter:

running a second process to grant requests for access to said resource from said application process in dependence on said reservation, comprising running a resource

specific scheduling process to grant access to a resource in dependence on the reservation initiated by said first process prior to said second process; and

utilizing said resource for the purposes of said application process;

wherein said hardware dependent second resource access requirement definition comprises a one-dimensional reservation request pattern which is merged with a one-dimensional CPU access control pattern, representing empty CPU access time slots and reserved CPU access time slots, without disturbing either the reservation request pattern or the reserved CPU access time slots in the reservation request pattern.

23.   (Previously Presented) A method as in claim 22 wherein said merging step comprises relocating a non-empty time slot element of the reservation request pattern or the CPU access control pattern such that the patterns can be merged without any reserved CPU access time slot elements being deleted or overwritten.

24.   (Previously Presented) A method as in claim 23 wherein the relocated non-empty time slot element is relocated by an amount defined in said time slot element.

25.   (Previously Presented) A method of administering resource utilization in a computer, the method comprising:

scheduling reservation requests in accordance with at least one method for a plurality of differing resources of the computer, wherein said scheduling initiates resource specific reservation processing and includes at least one method for making reservations for access to a resource of the computer,

running a first process to make a reservation for access to one of said resources in dependence on a resource requirement communication from an application process, said application process calling a scheduling method taking a hardware independent first resource access requirement definition as a parameter and calling the reservation method to make a reservation for said application process using a hardware dependent second resource access requirement definition as a parameter:

running a second process to grant requests for access to said resource from said application process in dependence on said reservation, comprising running a resource specific scheduling process to grant access to a resource in dependence on the reservation initiated by said first process prior to said second process; and

utilizing said resource for the purposes of said application process;

wherein said resource comprises a CPU of the computer, and said scheduling is arranged to reserve access to CPU time for said application process using said second resource access requirement definition in advance of said step of granting a request for access to the CPU; and

wherein in said one-dimensional CPU access control pattern, each element relates to a quantum of CPU access time, and wherein in said step of running the second process granting request for access to said resource from said application process in dependence

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on said reservation, said step of running a resource specific scheduling process to grant

access to a resource comprises granting access to the CPU by performing the steps of:

at the end of a quantum of CPU access time,

granting access to any pending processes having a priority greater than a

predetermined level; and then

if the next pattern element is empty then granting access to a pending process

meeting a predetermined prioritization criterion else granting access to a process

identified in the next pattern element.

26.   (Previously Presented) A method as in claim 25 wherein pending processes

populate queues having different priorities and access is granted to the process identified

in the pattern element when there is not a populated process queue having a higher

priority than the queue in which said process is present.

27-28. Cancelled.

29.   (Currently Amended) A method of administering resource utilization in a

computer, the method comprising:

scheduling reservation requests in accordance with at least one method for a

plurality of differing resources of the computer, wherein said scheduling initiate resource

specific reservation processing and includes at least one method for making reservations

for access to a resource of the computer,

running a first process to make a reservation for access to one of said resources in

dependence on a resource requirement communication from an application process, said

application process calling a scheduling method taking a hardware independent first

resource access requirement definition as a parameter and calling the reservation method

to make a reservation for said application process using a hardware dependent second

resource access requirement definition as a parameter:

running a second process to grant requests for access to said resource from said

application process in dependence on said reservation, comprising running a resource

specific scheduling process to grant access to a resource in dependence on the reservation

initiated by said first process prior to said second process; and

utilizing said resource for the purposes of said application process;

wherein said a second resource access request definition has a form suitable for

use by at least one of the following:

a CPU reservation component of the computer; and

a memory reservation component of the ~~compuer~~ computer;

wherein said memory reservation component comprises a mass storage device

reservation component of the computer;

wherein said resource comprises memory on said mass storage device and said

scheduling is arranged to reserve memory for said application process using said second

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resource requirement definition in advance of said step of granting a request for access to said mass storage device; and

wherein when said scheduling makes a reservation and one or more resource tokens are allocated to said application process in dependence on the second resource access requirement definition, and wherein in said second process said step of granting a request for access to said resource, the step of running a resource specific scheduling process to grant access to a resource in dependence on the reservation comprises:

(i)   storing requests for access to a mass storage device from application processes;

(ii)   generating randomly a resource token identifier; and

(iii)   if no application process has been allocated, said identified resource token then passes on to a mass storage device driver to process the stored request for access from an application process selected on the basis of a predetermined prioritization criterion, and otherwise:

said identified resource token then passes on to a mass storage device driver process a stored request for access from an application process to which said identified resource token was allocated.

30.   (Previously Presented) A method of administering resource utilization in a computer, the method comprising:

scheduling reservation requests in accordance with at least one method for a
plurality of differing resources of the computer, wherein said scheduling initiates
resource specific reservation processing and includes at least one method for making
reservations for access to a resource of the computer,

running a first process to make a reservation for access to one of said resources in
dependence on a resource requirement communication from an application process, said
application process calling a scheduling method taking a hardware independent first
resource access requirement definition as a parameter and calling the reservation method
to make a reservation for said application process using a hardware dependent second
resource access requirement definition as a parameter:

running a second process to grant requests for access to said resource from said
application process in dependence on said reservation, comprising running a resource
specific scheduling process to grant access to a resource in dependence on the reservation
initiated by said first process prior to said second process; and

utilizing said resource for the purposes of said application process;

wherein said a second resource access request definition has a form suitable for
use by at least one of the following:

a CPU reservation component of the computer; and

a memory reservation component of the computer;

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wherein said memory reservation component comprises a mass storage device reservation component of the computer;

wherein said resource comprises memory on said mass storage device and said scheduling is arranged to reserve memory for said application process using said second resource requirement definition in advance of said step of granting a request for access to said mass storage device; and

wherein when said scheduling makes a reservation in said first process, a weighting function associated with the application process is determined and in said second process, in said step of granting a request for access to the resource, the step of running a resource specific scheduling process to grant access to a resource in dependence on the reservation made by the reservation means comprises performing the steps of:

(i)   storing requests for access to a mass storage device from application processes;

(ii)   using a stochastic process, either selecting an application process with a probability determined by the weighting associated with the application process and passing on to a mass storage device driver process the stored request for access from the selected application process, or passing on to a mass storage device driver process a stored request for access from an application process selected on the basis of a predetermined prioritization criterion.

31-33. Cancelled.

34. (Currently Amended) A computer comprising a computer program capable of performing ~~the~~a method of ~~claim 19~~administering resource utilization in a computer when executed by said computer, said method comprising:

scheduling reservation requests in accordance with at least one method for a plurality of differing resources of the computer, wherein said scheduling initiates resource specific reservation processing and includes at least one method for making reservations for access to a resource of the computer,

running a first process to make a reservation for access to one of said resources in dependence on a resource requirement communication from an application process, said application process calling a scheduling method taking a hardware independent first resource access requirement definition as a parameter and calling the reservation method to make a reservation for said application process using a hardware dependent second resource access requirement definition as a parameter;

running a second process to grant requests for access to said resource from said application process in dependence on said reservation, comprising running a resource specific scheduling process to grant access to a resource in dependence on the reservation initiated by said first process prior to said second process; and

utilizing said resource for the purposes of said application process;

wherein said scheduling translates the hardware independent first resource access requirement definition into the hardware dependent second resource access requirement definition; and

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wherein said scheduling is supported by a platform and said scheduling translates said hardware independent resource access request definition to a second resource access request definition dependent on the properties of said platform.

35.   (Currently Amended) A tangible computer program storage medium containing a computer program capable of performing ~~the~~a method of ~~claim 19~~administering resource utilization in a computer when executed, said method comprising:

scheduling reservation requests in accordance with at least one method for a plurality of differing resources of the computer, wherein said scheduling initiates resource specific reservation processing and includes at least one method for making reservations for access to a resource of the computer,

running a first process to make a reservation for access to one of said resources in dependence on a resource requirement communication from an application process, said application process calling a scheduling method taking a hardware independent first resource access requirement definition as a parameter and calling the reservation method to make a reservation for said application process using a hardware dependent second resource access requirement definition as a parameter;

running a second process to grant requests for access to said resource from said application process in dependence on said reservation, comprising running a resource specific scheduling process to grant access to a resource in dependence on the reservation initiated by said first process prior to said second process; and

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utilizing said resource for the purposes of said application process;

wherein said scheduling translates the hardware independent first resource access requirement definition into the hardware dependent second resource access requirement definition; and

wherein said scheduling is supported by a platform and said scheduling translates said hardware independent resource access request definition to a second resource access request definition dependent on the properties of said platform.